

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 18 MAY 2005

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/GB2005/000410

International filing date (day/month/year)
04.02.2005

Priority date (day/month/year)
06.02.2004

International Patent Classification (IPC) or both national classification and IPC
B05B11/00

Applicant
GLAXO GROUP LIMITED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2005/000410

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2005/000410

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	72-80, 95-97
	No: Claims	1-71,81-94,98
Inventive step (IS)	Yes: Claims	
	No: Claims	1-98
Industrial applicability (IA)	Yes: Claims	1-98
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V.

1 Reference is made to the following document:

D1: WO 02/094708 A (COHEN, BEN, Z; SCHULTZ, ROBERT, S) 28 November 2002 (2002-11-28)

D2: US-A-5 024 355 (JOUILLAT ET AL) 18 June 1991 (1991-06-18)

D3: DE 196 10 456 A1 (ING. ERICH PFEIFFER GMBH, 78315 RADOLFZELL, DE) 18 September 1997 (1997-09-18)

2 INDEPENDENT CLAIM 1

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses (the references in parentheses applying to this document, see e.g. fig. 15 and fig. 24-25):

A fluid dispenser (600) for dispensing a metered volume of a fluid product (614) having:

- (a) a storage chamber (614) for storing the fluid product in;
- (b) a dispensing outlet through which the fluid product is dispensable from the dispenser;
- (c) a metering chamber (610) which is adapted to provide the metered volume of the fluid product for dispensing through the dispensing outlet by movement of the metering chamber between a contracted state and an expanded state, movement of the metering chamber from its contracted state to the expanded state placing the metering and storage chambers in fluid communication to enable the metering chamber to receive from the storage chamber an excess volume of the fluid product comprising the metered volume and a surplus volume; and
- (d) a bleed arrangement (606, 612) adapted to bleed the surplus volume of the fluid product from the metering chamber;

wherein:

- (e) the metering chamber is defined by a boundary wall having a first section (612) movably mounted in the dispenser to move the metering chamber between the expanded and contracted states; and

(f) the first section of the metering chamber boundary wall and the storage chamber are provided by a container unit which is movably mounted in the dispenser (see e.g. fig. 24).

The subject matter of claim 1 is therefore not new.

3 DEPENDENT CLAIMS 2-98

Dependent claims 2-98 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT) for the following reasons:

3.1 The subject matter of claims 2-71,81-94,98 is already known from same document D1 and is therefore not new.

The metering chamber inlet port of claims 86-91 is considered to be present in the pump of D1 for the following reason:

The ram portion of the piston in document D1, see e.g. §44, is made of a resilient flexible material. During the expanding phase, a high vacuum builds up in the metering chamber and because of the lip orientation and flex liquid will start to flow into the metering chamber. Annular lip of the piston acts therefore as the inlet port disclosed in claims 86-91.

3.2 The actuation mechanism of claims 72-77 is described in document D3 as providing the same advantages as in the present application. The skilled person would therefore regard it as a normal design option to include this feature in the dispenser described in document D1 in order to facilitate the operation of such dispenser.

The subject matter of claims 72-77 is therefore not inventive

3.3 The features of claims 95-97 are merely one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to atomize the fluid into very fine droplets.

The subject matter of claims 95-97 is therefore not inventive

3.4 Claim 98 do not fulfill the requirements of Rule 6.2 (a) PCT and is therefore not admissible.